



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,903	02/13/2004	Atsuo Hojyo	0505-1272P	6088

2292 7590 03/14/2006

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
----------	--------------

3726

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/777,903	Applicant(s) HOJYO ET AL.	
	Examiner Marc Jimenez	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/949,754.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5-25-04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: please update the first line of the specification to include - - now patent number 6,715,376 - - after “September 12, 2001”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1-2** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “the primary driven gear of the clutch” in the last two lines which lacks proper antecedent basis.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 1** is rejected under 35 U.S.C. 102(b) as anticipated by Oyama (US4622934) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oyama in view of Koji (JP 7-94859).

Oyama teaches in figure 2, assembling a crankshaft **3**, an intermediate shaft **16**, and a main input shaft **20**, and an output shaft **33** between a left case and a right case so they support both cases, mounting a primary gear **15** and a primary damper **11 or 13** on the crankshaft **3**, mounting an intermediate shaft driven gear **17** and an intermediate driving gear **18** on the intermediate shaft **16**, mounting a clutch **C1** on the main input shaft **20**, and engaging the intermediate shaft driven gear **17** with the primary gear **15** of the crankshaft **3**, and the intermediate shaft driving gear **18** with the primary driven gear **19** of the clutch **C1**.

The elements **11 or 13** of Oyama are considered “dampers” because they are seals (col. 2, line 52). Seals inherently will provide damping ability.

Alternatively, Koji teaches dampers **21** on a crankshaft **12** in figure 3.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention to have provided the invention of Oyama with dampers on the crankshaft, in light of the teachings of Koji, in order to reduce vibration.

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Oyama in view of Sumi et al. (US6334422) or alternatively, over Oyama/Koji in view of Sumi et al.

Oyama or Oyama/Koji teach the invention cited with the exception of fitting and spline-coupling the intermediate shaft driven gear on the intermediate shaft, fitting a sub-gear on a boss of the intermediate shaft driven gear with a coil spring disposed on the side opposed to the sub-gear to support the coil spring between the intermediate shaft driven gear and the sub-gear; fitting and spline-coupling the intermediate shaft driving gear on the intermediate shaft; fitting a sub-gear on a boss of the intermediate shaft driving gear, and sandwiching a coil spring between the intermediate shaft driving gear and the sub-gear.

Sumi et al. teach in figure 1, fitting and spline-coupling **10c** a gear **9** on a shaft, fitting a sub-gear **9a** on a boss **9d** of the gear **9** with a coil spring (see between **9** and **9a**) disposed on the side opposed to the sub-gear **9a** to support the coil spring between the shaft gear **9** and the sub-gear **9a**; fitting and spline-coupling **10c** the shaft gear **9** on the shaft; fitting a sub-gear **9a** on a boss **9d** of the shaft gear **9**, and sandwiching a coil spring between gear and the sub-gear.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Oyama or Oyama/Koji with fitting and spline-coupling the intermediate shaft driven gear on the intermediate shaft, fitting a sub-gear on a boss of the intermediate shaft driven gear with a coil spring disposed on the side opposed to the sub-gear to support the coil spring between the intermediate shaft driven gear and the sub-gear; fitting and spline-coupling the intermediate shaft driving gear on the intermediate shaft; fitting a sub-gear on a boss of the intermediate shaft driving gear, and sandwiching a coil spring between the intermediate shaft driving gear and the sub-gear, in light of the teachings of Sumi et al., in

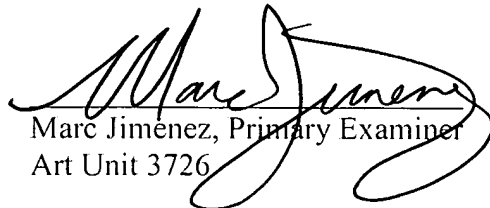
Art Unit: 3726

order to securely fasten the driven gear to the intermediate shaft by providing a spline connection and in order to reduce backlash and noise by providing a sub-gear.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Marc Jimenez, Primary Examiner
Art Unit 3726

MJ
2-6-06